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A Matter of Perspective: The Peer Relationships of Youths with Psychopathic Personality Traits

Luna C. Muñoz

Örebro University

Margaret Kerr

Örebro University

Nejra Bešić

Örebro University

Submitting Author: Luna C. Muñoz

Center for Developmental Research

BSR: Psychology Department

Örebro University

701 82 Örebro

Sweden

Phone: +46 19 30 21 97 Fax: +46 19 30 34 84

Email: Luna.Munoz@bsr.oru.se

Abstract

Because a callous use of others in many short-term relationships is one criterion for diagnosing psychopathy in adults, one would expect adolescents who are high on psychopathic personality traits to have unstable, conflict-ridden peer relationships. Little is known about this, however, or about the peer activities of youths who are high in psychopathic traits. We examined relationship quality and delinquency with peers in adolescents who were, over four years, stably high or stably low on psychopathic traits. Participants were 12- to 15-year-olds in a community sample. Peers also provided data on relationship quality. Youths who were high on psychopathic traits often engaged in antisocial activities with their peers. They reported conflict in their peer relationships, but their peers did not report low support or high conflict in those relationships. We conclude that youths with psychopathic traits have biased perspectives on interactions with close peers, and this might underlie future problems.

Keywords: personality, psychopathic traits, peer relationships, adolescence, peer delinquency.

A Matter of Perspective: The Peer Relationships of Youths with Psychopathic Personality Traits

People with psychopathic personality traits have problems relating to others. They tend to be manipulative, heartlessly unconcerned about others' feelings, and dishonest (Hare, 1993). Cleckley (1976), in his seminal work, described the psychopath as showing shallow affect, superficial charm, insincerity, lack of remorse or shame, poorly motivated antisocial behavior, and unresponsiveness in interpersonal relations. These qualities are almost certain to interfere with good relationships. Indeed, regarding social relationships, Cleckley described the person with psychopathy as having a sex life that is impersonal, and as exhibiting a failure to love or to follow a life plan. It is unsurprising, then, that psychopaths leave behind many heartbroken, cheated, and manipulated people (Cleckley, 1976; Hare, 1993). Because the consequences for others are so dire, how and when psychopathic personality features develop is a critical issue. A substantial body of work has identified and validated psychopathic personality traits in adolescent offender samples (Forth, Hart, & Hare, 1990; Skeem & Cauffman, 2003; Salekin, Leistico, Neumann, DiCicco, & Duros, 2004; Kruh, Frick, Clements, 2005) and community samples (Andershed, Gustafson, Kerr, & Stattin, 2002; Andershed, Kerr, Stattin, & Levander, 2002; Barry et al., 2000; Christian, Frick, Hill, Tyler, & Frazer, 1997; Frick, Cornell, Barry, Bodin, & Dane, 2003). But, although some instruments that assess psychopathic traits in adolescents include items such as not being able to keep friends for very long (Frick & Hare, 2001), little is actually known about the peer relationships of adolescents who are high on psychopathic personality traits.

There are sound theoretical reasons for looking into the peer relationships of adolescents with psychopathic traits. Peer relationships are arguably more important in adolescence than at any other time in development. In contrast to childhood relationships, which are mostly based on shared interests, adolescent relationships involve support and

communication. They allow adolescents to learn social skills that they would not learn in other relationships (Laursen, Finkelstein, & Betts, 2001), and, it has been argued, they shape adolescents' perceptions of the world and influence their subsequent behaviors in their newly created worlds (Piaget, 1932). Thus, adolescent relationship experiences probably color people's expectations and behaviors in adult relationships. Because psychopathic personality traits interfere with so many of the demands of relationships, adolescents with these traits might create negative experiences for themselves and their close peers. There are many questions to be answered, then, about the peer relationships of adolescents with psychopathic traits: Whether they are able to make and keep friends and if so, who those friends are; what they do with their friends, particularly whether they perform antisocial acts together; how they see their relationships with their close peers; and how their peers view their relationships with them.

First, concerning whether adolescents with psychopathic traits are able to make and keep friends, there is much to suggest that they should not be. The literature on adult psychopathy suggests that youths with psychopathic traits should have primarily short-lived relationships in which they essentially use people for their own purposes (see Hare, 1993, for a description). One could easily imagine, then, that they would not view relationships as important in the short or long term. It is also easy to imagine that youths high in psychopathic traits would not be named by others as friends. To our knowledge there is only one study to date that has looked at the friendships of youths high in psychopathic traits (Kimonis, Frick, & Barry, 2004). A community sample of 12-year-old boys and girls were grouped according to parent and teacher reports as high or low in callous-unemotional personality traits and in conduct problems. These youths were asked to report on their friends' delinquency every year over four years. This study showed that youths with callous-unemotional traits did have friends, and the friends were more likely to be delinquent than were the friends of youths

without these traits. This is consistent with studies showing that youths with conduct problems have friends, but they tend to be other antisocial youths (Cairns, Cairns, Neckerman, Gest, & Gariépy, 1988; Vitaro, Brendgen, & Tremblay, 2000). However, according to Kimonis and colleagues (1994), the personality traits predicted having delinquent friends better than conduct problems did, at least at the early time points. However, Kimonis and colleagues asked youths about their friends, and it is possible that the friendship was in the eyes of youths who were high on callous-unemotional traits. It is still unknown whether they would be named by others as a friend.

Concerning what youths who are high on psychopathic traits do with their friends, particularly whether they perform antisocial acts together, Quay's (1993) theory about "undersocialized aggressive" delinquents is most relevant. These are youths who commit delinquent acts alone rather than in groups as most adolescents do. Quay's theory suggests that adolescents who are high on psychopathic traits would perform delinquent acts alone. At the same time, one study has found that callous-unemotional youths have antisocial friends, which indirectly suggests that they might perform antisocial acts together (Kimonis et al., 2004). A limitation in this study, however, was the use of youth's reports of their peers' delinquency. These measures are subject to the false-consensus effect, in which people, including problematic youths, perceive others as more like themselves than they actually are (see Prinstein & Wang, 2005; Mahaffey & Marcus, 2006). In fact, youth reports of peers' delinquency have been shown empirically to be biased in this way (Prinstein & Wang, 2005). In addition, it is possible that youths with psychopathic traits associate with deviant peers in settings such as school, but engage in delinquent activities alone outside of school. Thus, independent reports of peers' delinquency are necessary to know conclusively whether youths high in psychopathy have delinquent friends, and reports of actual joint activities are necessary to know whether they perform delinquent acts alone or together with their friends.

Another question that remains unanswered about the peer relationships of youths with psychopathic traits is how they view their relationships with their close peers; and how their peers view these relationships. Common sense would suggest that youths who are manipulative, dishonest, and callously insensitive to others, would not be perceived as high quality friends. Perhaps the research that comes closest to this is research dealing with instrumentally aggressive youths, because the aggression of youths high in psychopathic traits tends to be instrumental (Frick et al., 2003). Youths who show high levels of aggression in pursuit of a goal (i.e., instrumental aggression) form friendships that they report as being satisfactory, at least early in the formation of the friendship (Poulin & Boivin, 2000). In contrast, those who show a more reactive type of aggression, which involves impulsive responses to perceived provocations or threats (Dodge & Coie, 1987), report low satisfaction and more conflict in their friendships than instrumentally aggressive youths (Poulin & Boivin, 1999). How the friends of these aggressive youths viewed the friendships, however, is unknown. Relationships of youths with conduct disorder can also offer hints, although not all youths with conduct problems are high in psychopathic traits. Interactions of individuals with conduct problems are poor, but reports of relationship satisfaction do not differentiate them from youths without conduct problems (Dishion, Andrews, & Crosby, 1995; Bagwell & Coie, 2004). But although these findings offer hints, they are quite loosely connected to psychopathic traits. There is much to be discovered about how youths with psychopathic traits view their peer relationships and how their peers view them.

Theoretically, the personality traits associated with psychopathy should have a direct bearing on the actual and perceived quality of any relationships that youths with these traits might have. Indeed, the self-referential and affective features of psychopathy could influence the perceived relationship quality. Individuals who are high on psychopathic traits may see themselves as faultless. Thus, they perceive any problems in their relationship as the

responsibility of their partner, which may lead to the perception of poor relationship quality. Thus, factors that influence one's perception of others might be important in determining how individuals with psychopathic traits rate the quality of their relationships. Relationship satisfaction is influenced by both the characteristics of the perceiver and the characteristics of the person being perceived, as well as by the unique interaction between the two individuals (e.g., Branje, van Aken, van Lieshout, & Mathijssen, 2003). In fact, perceptual biases may determine relationship satisfaction. For example, individuals who are more agreeable (i.e., more considerate and empathetic) perceive better support in their relationships and are *perceived* as more supportive by others (Jensen-Campbell & Graziano, 2001). Unlike agreeable individuals, individuals with psychopathic traits, who are lacking in empathy, are likely to fail to consider the wishes of others in their actions. They may believe that friends are present simply to please them and may perceive others as being unsupportive when they do not submit.

In this study, we examine the peer relationships of youths with psychopathic traits. We use data from 12- to 15-year-olds in a community sample followed longitudinally over 4 years. First, we ask whether youths who were stably high in psychopathic traits have stable friendships and whether they are named by others as friends. Second, we look at the friends' delinquent behavior, and whether youths high in psychopathy perform delinquent acts together with their friends. As part of this issue, we look at where they meet and spend time with their friends. Finally, we examine the quality of the relationships, as reported by both the youths themselves and their friends.

Method

Participants

The data are taken from a longitudinal community-based study. The study was conducted in a medium-sized city in Sweden, and involved all schoolchildren aged 10 to 18 at

12 different schools, ranging from fourth through twelfth grade. The study provides information about important peers in the classroom as well as outside of school. So far, data have been collected annually for four years. For this study, we followed seventh and eighth grade target youths and their seventh and eighth grade important peers (ages ranging from 12 to 15) over four years (N = 667).

Measures

Psychopathic personality traits. These were assessed with the Youth Psychopathic traits Inventory (Andershed, Kerr et al., 2002). The inventory includes 50 items, rated on four-point Likert scales ranging from "does not apply at all" to "applies very well." This scale consisted of three different subscales, namely Callous/Unemotional traits, Impulsivity/Irresponsibility, and Grandiosity/Manipulativeness. Examples of items were: "I like to be where exciting things happen," and "I prefer to spend my money right away rather than save it," indicating Impulsivity/Irresponsibility; "I usually feel calm when other people are scared," and "I think that crying is a sign of weakness, even if no one sees you," indicating Callous/Unemotional traits; "It is easy for me to charm and seduce others to get what I want from them," and "I can make people believe almost anything," indicating Grandiosity/Manipulativeness. These items were written so that the statements could be read by people high in psychopathic traits as reflecting positive or admirable qualities. This scale has been validated with both Swedish and U.S. samples, showing positive relations with self-reported conduct problems (Andershed, Gustafson et al., 2002) and institutional infractions (Skeem & Cauffman, 2003). The internal consistency of the total scale ranged from .93 to .96 for the four years. The cross-year correlations ranged from .52 to .67.

Nomination of important peers. Participants were asked to identify four important peers at Time 1. The following three assessment points asked for three nominations of important peers. Important peers could be "someone you talk to, hang out with, and do things

with." The instructions also stated that an important peer could not include one's parents or other adults. Furthermore, the important peer could live anywhere, did not need to be the same age as oneself, and could be either a boy or a girl. Besides nominating an important peer, the participants were also asked to state the type of relationship they had with that person, such as friend, sibling, or other. In addition, they stated where they met (i.e., at school, in the neighborhood, at a club, at the youth center, or some other place). Data for the important peers was only available when important peers were part of the present study (i.e., attending the same school or any of the other schools involved). If an important peer was not part of the study, the data from the other nominated important peers were used.

Quality of peer relationships. We included items from two subscales of the friendship quality scale used by Parker and Asher (1993) in our data collection. These data were only collected for the first-nominated, or most important, peer. Eight items, rated on five-point scales, were used from the Validation and Caring subscale, including "Makes me feel good about my ideas" and "Says 'I'm sorry' if she/he hurts my feelings." Five other items were used from the Conflict and Betrayal subscale, including "We argue a lot" and "We annoy each other a lot." A Principal Axis Factoring analysis was performed on all 13 items using an Oblimin rotation, which allows the factors to be correlated. Items loaded on their respective factors except for one: "Keeps his or her promises" loaded with the Validation and Caring items and was included in this factor, which was named Support (α's ranging from .82 to .89 in all time points). The other factor comprised items reflecting its name: Conflict (α's ranging from .90 to .93 for all time points).

Peer-reported relationship quality. To examine the relationship quality reported by peers, we only used data from those who reciprocated the nomination. The three (or four for Time 1) important peers' data on relationship quality was averaged, on the condition that the peer nominated the target person as their most important peer. Specifically, 254 target youths

had peers who nominated them as the most important peer at Time 1. There were 245 at Time 2, 191 at Time 3, and 119 at Time 4.

Activities with most important peer. These questions were only asked about the most important peer (i.e., the peer nominated in the first position). A list of activities was provided including antisocial and leisure activities. The activities of interest for the present study were "Played hooky," "Shoplifted," "Talked about illegal things," and "Did things that would get you into trouble with the police." Participants were asked to answer "no," "yes, one time," or "yes, several times."

Delinquency. There were two subscales taken from a larger set of questions: Delinquency and Violence in the Community. Participants were asked to respond to twenty-two different questions regarding several aspects of delinquency (e.g., drugs, serious delinquency, minor delinquency, and serious violence). These items provided a measure of Delinquency. All questions regarded the past year, and the five-point responses ranged from "no, it has never happened" to "more than ten times." Only the less serious delinquency items were used due to the low base rate of many of the other subscales for this sample. The seven items referring to Delinquency were: "Have you been painting graffiti, or writing with markers or spray paint, on, for example, a sidewalk?"; "Have you bought or sold something you knew or thought had been stolen?"; and "Have you taken a bicycle without permission?" The Cronbach alphas for the Delinquency subscale were .84 for Time 1, .81 for Time 2, .76 for Time 3, and .70 for Time 4. The cross-year correlations for the Delinquency subscale were moderate (*r*'s ranging from .50 to .69).

There were four questions about violence perpetrated in the community (Violence in the Community) within the past term of the school year. The four-point scale ranged from "no, it has not happened this term" to "yes, it has happened four or more times." The items referred to the individual either acting out violence or carrying a weapon. The items were:

"Have you been part of attacking others on any night without them having threatened or attacked you or your friends first?"; "Have you been part of kicking anyone who was lying down or kicked against his/her head?"; "Have you been part of threatening or forcing anyone to give you money, cellphone, cigarettes, or anything else?"; and "Have you carried any weapon when you have been out at night (even as self-defense)?" The Cronbach alphas for these items were .77 for Time 1, .88 for Time 3, and .72 for Time 4. The cross-year correlations were low and ranged from .13 to .21. This scale was not included in the second year of data collection.

Peer-reported delinquency. To examine peer-reported delinquency, we identified all important peers of the target youths, not only the most important peer. The three (or four for Time 1) important peers' data were then averaged, without regard to reciprocation. Specifically, 458 target youths had peers who nominated them as the most important peer at Time 1. There were 408 at Time 2, 321 at Time 3, and 220 at Time 4.

Data Analyses

Formation of psychopathic trait groups. First, all scores were standardized. For each time point, we did a median split of psychopathic traits for boys and girls, separately. We did this separately for boys and girls to ensure an adequate sampling of girls who were high on psychopathic traits (compared with other girls). Prior research has found that girls who show severe conduct problems have lower absolute levels of psychopathic traits than boys with severe conduct problems (Silverthorn, Frick, & Reynolds, 2001). This method allowed us to examine the moderating role of gender in differences between high and low psychopathic trait groups.

Stably high and stably low groups at all four time points were selected from a sample of 327 boys and 340 girls. The stably high psychopathic traits group (39 boys and 48 girls) was high on psychopathic traits at each of the four years. This group corresponds to 12 and 14

percent of the original sample. The low psychopathic traits group (52 boys and 67 girls) was low at each year. This group corresponds to 16 and 20 percent of the original sample. The unselected sample evidenced average level of psychopathic traits that ranged from -.07 to .10 for the four years. The low group had relatively stable mean scores on the Youth Psychopathic traits Inventory from Time 1 to Time 4 and ranged from -.55 to -.57, while the high group was also about half a standard deviation above the sample mean and ranged from .40 to .58. Each group was not similarly low/high on Callous/Unemotional, Impulsivity/Irresponsibility, and Grandiosity/Manipulativeness traits. For both groups, boys were higher on the affective traits (i.e., Callous-Unemotional and Grandiosity/Manipulativeness) than Impulsivity/Irresponsibility. Girls were lowest on Callous-Unemotional traits and similarly high on the affective traits. In Figure 1, the high group's levels on the three subscales were plotted with separate lines for boys and girls.

Results

Validation of Psychopathic Traits Groupings

Because prior research has found greater police contacts and self-reported delinquency levels for youths with psychopathic traits (e.g., Andershed, Kerr et al., 2002; Christian et al., 1997) and psychopathic traits should, theoretically, be linked to delinquency and violence, we first examined reports of delinquency and violence for the high and low psychopathic traits groups over time. Specifically, we performed 4 (Time) x 2 (Group) x 2 (Gender) mixed analyses of variance (ANOVAs) on reports of delinquency and violence. We included gender because these behaviors are more common among boys than girls. Time was entered as the within-subjects factor and psychopathic trait group membership and gender were the between-subjects factors. Mauchly's test indicated that the sphericity assumption had been violated (X^2 (5) = 35.94, $p < .001$; X^2 (2) = 26.47, $p < .001$, for delinquency and violence respectively). Given that all analyses violated this assumption, degrees of freedom were corrected for all

analyses using Greenhouse-Geisser estimates of sphericity. As shown in Table 1, for delinquency there were significant effects of group (F (1,179) = 64.66, $p < .001$, Partial Eta^2 = .27). Youths who were high on psychopathic trait evidenced more delinquency (M = .14) than youths who were low on these traits (M = -.30). There also was a gender by time interaction with boys, as compared to girls, showing a linear and sharper increase in delinquency over time (F (2.65,475.08) = 2.89, $p < .05$, Partial Eta^2 = .02). However, boys and girls did not differ in delinquency at Time 1.

For violence, the only significant effect was a Group x Gender interaction (F (1,200) = 7.89, $p < .01$, Partial Eta^2 = .04). Consistent with research on adjudicated youth (Kruh, Frick, & Clements, 2005), youths who were stably high on psychopathic traits (M = 0.17 and M = -0.12 for boys and girls, respectively) were more violent than those who were stably low (M = -0.16 and M = -0.21 for boys and girls, respectively), and this pattern was most evident for boys (see Figure 2). In sum, these results suggest that the psychopathic traits groups created for the present study differ in delinquency and violence in the expected manner and according to theory and previous empirical findings.

Do Youths Who Are High on Psychopathic Traits Make and Keep Friends?

Do they name important peers? Chi square tests were performed on whether youths who were high and low on psychopathic traits nominated important peers. The Likelihood ratios for each of the four time points revealed no significant differences for psychopathic traits (Likelihood ratio (df = 1) = 1.36 for Time 1; 1.07 for Time 2; 0.08 for Time 3, 1.77 for Time 4, all *p*s = n.s.). Youths who were high on psychopathic traits (79, 91, 81, and 99 percent, respectively at Time 1 to Time 4), nominated peers as often as youths who were low on psychopathic traits (85, 87, 80, and 100 percent, respectively at Time 1 to Time 4). No gender by psychopathic group differences were found. Thus, youths high in psychopathic traits seem as likely as others to have important peers in their lives.

Are they named by others? We also examined the number of reciprocated relationships with important peers. In other words, given that a youth had named another as any important peer, how many had also named the individual? We found gender by psychopathic group interactions at Time 2 (F (1,206) = 9.13, $p < .01$, Partial Eta^2 = .04) and Time 3 (F (1,206) = 5.59, $p < .05$, Partial Eta^2 = .03). Examining the plots of the interactions revealed that boys who were high on psychopathic traits had more reciprocated relationships (M = 1.38, SD = 0.88; M = 1.05, SD = 0.83 for Time 2 and 3, respectively) than boys who were low on these traits (M = .90, SD = 0.77; M = .81, SD = 0.77 for Time 2 and 3, respectively). On the other hand, girls who were high on psychopathic traits had fewer reciprocated relationships (M = 1.06, SD = 0.91; M = .79, SD = 0.65 for Time 2 and 3, respectively) than girls who were low (M = 1.31, SD = 0.86; M = 1.09, SD = 0.92 for Time 2 and 3, respectively). Thus, it seems that youths who were high on psychopathic traits were just as able to make friends as youths who were low on psychopathic traits. However, girls who were high on psychopathic traits appeared to perceive relationships with individuals that were not returned more often than girls who were low.

Are their friendships stable? We asked, next, whether youths who were high in psychopathic traits were less likely than those low in psychopathic traits to keep the same friends from one year to the next. To examine the stability of the nominations for high and low psychopathic trait groups, we compared the important peer nominations across consecutive time points. We defined stable pairings as those who nominated the same person as one of their three important peers at two consecutive time points. This was performed for Time 1 to 2, Time 2 to 3, and Time 3 to 4. The differences in the stability of nominations between youths who were high and low on psychopathic traits only reached significance for Time 1 to 2 (Likelihood ratio (df=1) = 7.49, $p < .01$) and for Time 2 to 3 (Likelihood ratio (df=1) = 9.12, $p < .01$). In general, youths who were high on psychopathic traits were less

likely to nominate the same person as their important peer for two years in a row than youths who were low on psychopathic traits (94, 88, and 90 percent versus 100, 99, and 97 percent for the high and low psychopathy groups at T1-2, T2-3, and T3-4, respectively). The last comparison was not significant (Likelihood ratio (df=1) = 2.72, p = n.s. for Time 3 to 4). Thus, although the effect is not uniform, there is evidence that youths who are high on psychopathic traits have less stable peer relationships in adolescence than those who are low on psychopathic traits, particularly in early adolescence.

What do Youths Who Are High on Psychopathic Traits do With Their Friends?

Youths who are high on psychopathic traits have peers who are higher on delinquency. The question, however, is whether they engage in delinquent acts with those peers. To answer this question, we performed a series of mixed ANOVAs on the activities done with the most important peer. Between-subjects main effects were found for all activities examined. As shown in Table 1, youths who were high on psychopathic traits played hooky (F (1,171) = 18.30, p < .001, Partial Eta^2 = .10), shoplifted (F (1,170) = 14.21, p < .01, Partial Eta^2 = .08), talked about illegal activities (F (1,173) = 35.38, p < .001, Partial Eta^2 = .17), and engaged in illegal activities (F (1,169) = 19.39, p < .001, Partial Eta^2 = .10) with their most important peer more often than those who were low on psychopathic traits. An interaction was found for time and psychopathic group for playing hooky (F (2.49,426.16) = 3.00, p < .05, Partial Eta^2 = .02). Youths who were high on psychopathic traits more sharply increased playing hooky with their peer, particularly from Time 2 to Time 3, than did youths who were low on these traits.

Significant effects of gender were found for talking about illegal activities, with boys doing this more than girls (F (1,173) = 5.98, p < .05, Partial Eta^2 = .03), but there were no significant gender interactions. Thus, although boys talked about illegal activities more often than girls, boys and girls who were high on psychopathic traits *performed* activities similarly

more often with their peers than those who were low on these traits. Regardless of gender, youths who were high on psychopathic traits shared more antisocial activities with their most important peers than did those who were low on these traits.

Who Are the Friends of Youths High in Psychopathy?

Types of relationships and contexts. To get a thorough picture of the friends of youths high in psychopathic traits, we first compared the high and low psychopathic traits groups on types of important peers nominated (friend, sibling, and romantic partner) and contexts in which they met (school, neighborhood, club/organization participation). We analyzed the Likelihood ratios at each time point for the type of peer that was nominated by youths who were high and low on psychopathic traits. No significant differences in types of important peers were found between the psychopathic trait groups at any of the time points. Concerning contexts, we analyzed the Likelihood ratios at each time point for where the target youths met their most important peers. No significant effects were found for psychopathic trait grouping for Time 1 through 3 (Likelihood ratio (df = 4) = 2.15 for Time 1; (df = 4) = 7.52 for Time 2; (df = 4) = 3.10 for Time 3, all *p*s = n.s.). Only at Time 4 was a difference found, with 17 percent of youths who were high on psychopathic traits (15 out of 86) nominating peers from their neighborhood and only 5 percent of youths low on these traits nominating peers from their neighborhood (6 out of 115) (Likelihood ratio (df = 3) = 9.30, $p < .05$). Also, almost half of youths who were low on psychopathic traits (54 out of 115) nominated peers from a club or organization while 36 percent of the youths high on these traits did so (31 out of 86). The nominations of peers from school were similar for both groups.

Because delinquency most often occurs in contexts free from adult supervision, levels of delinquency could depend on the context from which the friend comes. We aimed to answer whether delinquency varied with the type of friend chosen for youths who were either high or low on psychopathic traits? Delinquency is a behavior that most often occurs outside

of school and outside of school hours. Moreover, friends met in school were less likely to engage in delinquency. Therefore, youths who have consistently nominated friends who were met in school may evidence lower levels of delinquency. Another possibility, in fact, may be youths who are high on psychopathic traits might not evidence lower levels given their penchant for antisocial behavior. To explore these possibilities, a mixed ANOVA was performed with psychopathic trait group and consistent school friendship (i.e., across all four years) as between-subjects effects. Contrary to expectations, there was no main effect of school friendship and no interaction with psychopathic traits grouping. Examining the within-subjects effects revealed a 3-way interaction with time, school friendship, and group (F (2.64,473.32) = 3.00, $p < .05$, Partial $Eta^2 = .02$). The within-subjects contrasts revealed a significant difference between Time 1 and Time 2 (F (1,179) = 7.20, $p < .01$, Partial $Eta^2 = .04$). Surprisingly, the interaction was only evident for youths who were high on psychopathic traits. As shown in Figure 3, instead of an increase in delinquency, which was evident for youths who did not consistently nominate a school friend, a sharp decrease was shown for those who consistently nominated at least one school friend.

Peers' delinquency. Two 4 (Time) x 2 (Group) x 2 (Gender) mixed ANOVAs were performed on peers' own self-reported delinquency and violence (see Table 1). A between-subjects effect was revealed for delinquency (F (1,70) = 20.00, $p < .001$, Partial $Eta^2 = .22$). Youths who were stably high on psychopathic traits nominated important peers who engaged in more delinquency (M = .06) than youths who were low on psychopathic traits (M = -.27). There was no interaction with gender. Although they showed mean levels of delinquency, the peers of youths who were high on psychopathic traits self-reported more delinquency than did the peers of youths who were low on psychopathic traits. Figure 2 shows the group by gender interaction for violence (F (1,72) = 5.25, $p < .05$, Partial $Eta^2 = .07$), where boys who were high on psychopathic traits (M = .27) with respect to those who were low on these traits (M =

-.15) nominated violent peers more often. Girls nominated peers with similar violent behaviors (M = -.15 and -.18 for girls who were high and low on psychopathic traits, respectively).

Peers' psychopathic traits. Similar to the previous analyses, a mixed ANOVA was performed on peers' own self-reported psychopathic traits (see Table 1). A between-subjects effect was revealed (F (1,64) = 6.03, $p < .05$, Partial Eta^2 = .09). Youths who were stably high on psychopathic traits nominated important peers who endorsed psychopathic tendencies (M = .01) more than youths who were low on psychopathic traits (M = -.24). However, these mean levels for peers' psychopathic traits are not as extreme as the levels for the stably high and low groups.

How Do Youths Who Are High in Psychopathic Traits View Their Peer Relationships, and How Do Their Peers View Relationships With Them?

Individuals' views. To examine how youths who were high on psychopathic traits described their relationships with their most important peers compared with those who were low on psychopathic traits, two 4 (Time) x 2 (Group) x 2 (Gender) mixed analyses of variance were performed on perceived support and conflict (see Table 1). Time was the within-subjects factor and both psychopathic trait group membership and gender served as the between-subjects factors. As shown in Table 1, psychopathic traits groups did not differ on reports of support. However, for conflict, a between-subjects main effect was found for psychopathic traits grouping (F (1,161) = 6.74, $p < .01$, Partial Eta^2 = .04). Youths who were high on psychopathic traits reported more conflict with their most important peer than did youths who were low on psychopathic traits. These youths, then, perceived more arguments and more betrayal in their relationships with individuals whom they chose as their most important peers than the youths who were low on psychopathic traits. They did not perceive less support, however.

Peers' views. Finally, we examined how the peers, in turn, perceived their relationships with the target youths in the high and low psychopathic traits groups. A series of 2 (Group) x 2 (Gender) between-subjects ANOVAs were performed on the reports of support and conflict given by the important peers. Concerning support, although the important peers of girls reported significantly higher levels of support than the important peers of boys, no psychopathic trait group differences approached significance. Overall, then, the psychopathic trait group differences that appeared in the reports of the youths themselves were largely absent in the reports of their important peers. Even though youths who were high in psychopathic traits saw their peer relationships as more conflict ridden than did youths who were low on psychopathic traits, for the most part their peers did not share those views.

Discussion

In descriptions of adult psychopaths, one of the most salient characteristics is the inability to form committed, long-lasting relationships with others. In fact, adults with psychopathy tend to take advantage of others in a parasitic way (Cleckley, 1976). They view others as objects that can be used and manipulated in order to get ahead. Although much research has now been done to examine the role of these personality traits in the development of children's and adolescents' problem behaviors, little has focused on what these traits mean for the development of peer relationships. Based on the literature, we expected adolescents who exhibited these traits to have peer relationships that were as defective as the adult relationships described for individuals with psychopathy. Surprisingly however, the youths who were high on psychopathic traits had friends, and these friendships were fairly stable. Also, the friendships were not unilateral. Peers, in turn, selected youths who were high on psychopathic traits as friends nearly as often as did the peers of youths who were low on these traits, albeit mostly for boys. Even more surprisingly, the friends of these youths did not see their friendships as particularly unsupportive or conflictual. However, youths who were high

on psychopathic traits perceived conflict in their relationships. Psychopathic personality traits appear to lead to this perception. Taken together, the findings show a tendency for youths high in psychopathic traits to misperceive certain aspects of relationships.

This is the first study to examine how youths who are high on psychopathic personality traits experience their relationships with their peers. We cannot say that youths with high levels of psychopathic traits will continue to have these traits into adulthood. However, it is noteworthy that these personality traits, which have importance in the stability and violence in adult relationships, only seem to color how adolescents perceive their relationship partners.

One question raised by these findings is why the peer relationships of adolescents who were high on psychopathic traits were as stable as they were. One might have expected the relationships to be more affected by psychopathic personality traits over the course of adolescence. One possible explanation is that youths who are high on psychopathic traits have less trouble finding peers who are willing to participate in antisocial behavior as they move through adolescence and delinquent acts become more normative (see Moffitt, 1993). Earlier in adolescence, they may need to change peers more often to find willing accomplices. The finding that peers of youths who were high on psychopathic traits showed higher levels of delinquency, but not higher levels of violence would be consistent with this idea. Their peers seemed to be dabbling in antisocial behavior rather than showing persistently problematic behavior as evidenced by violence.

Another question raised by the findings is why the peers of youths who were high on psychopathic traits did not perceive their relationships to be unsupportive or conflict ridden. One possible explanation lies in the kind of peers who were friends with these youths. These peers were not particularly high on psychopathic traits, although they were higher than the peers of youths who were low on psychopathic traits. Peers who evidence average levels of

psychopathic traits and who want to dabble in antisocial behavior may be attracted to youths who are high on psychopathic traits. In order to maintain these relationships that revolve around antisocial acts, these peers may be willing to endure a higher level of conflict than others would before reporting it as elevated. Thus, although youths who were high on psychopathic traits reported conflict, their peers did not. It remains unknown whether they perceive conflict where none exists or whether they experience conflict and are the willing party in admitting it.

Only one previous study has dealt with the peer relationships of youths high in psychopathic traits (Kimonis et al., 2004). In that study, youths high on callous-unemotional traits reported having friends who were high in delinquency. The limitations of their findings were that the peer measures were through the eyes of the target youths, rather than from peers. This leaves open the questions whether peers would have named them as a friend and whether they would have self-reported similar levels of delinquency. Our findings were able to confirm those, even with a broader measure of psychopathic traits and peers' own reports of friendship and delinquency. We also extended the previous knowledge by looking at delinquent activities within the relationships, which were not examined by Kimonis and colleagues (2004). We found that the commission of delinquent activities was more common in the relationships of youths who were high on psychopathic traits than in the relationships of youths who were low. This does not support the idea that youths who are high on psychopathic traits act as lone criminals (see Quay, 1993). However, we cannot rule out the possibility that the youths in our high-psychopathy group committed delinquent acts alone as well as with their peers. Therefore, the youths who were high on psychopathic traits engage in substantial numbers of delinquent acts with their peers, and it is possible that these youths form relationships based on shared delinquent activities.

There are a couple of questions that the present study does not answer. First, this study does not say whether youths who were high on psychopathic traits selected delinquent peers or whether they influenced their peer's delinquency. Second, it does not say whether adolescents who were high on psychopathic traits also committed their delinquent activities alone, perhaps with greater frequency. A possibility that cannot be denied is that youths who were high on psychopathic traits committed much of their delinquency alone, but engaged in delinquent activities with others when it gained them better access to rewards. For example, they may commit antisocial acts with others to diffuse responsibility if caught, or they may use delinquent peers to gain greater dominance over others. In fact, the most delinquent peers with which youths who were high on psychopathic traits associated were neighborhood peers. The rewards are indeed greater and risks less likely outside of school grounds. Regardless, this is one of a number of questions that remain unanswered.

An unexpected result begs further questions. Youths who were high on psychopathic traits were protected from increasing delinquency when they had at least one school friend for the study period. Delinquency decreased for these individuals, whereas it increased for those who went one year or more without nominating a school friend. Prior research has documented lower levels of antisocial behavior for youths and peers who had met in school, with respect to those who met in the neighborhood (Kiesner, Kerr, & Stattin, 2004). However, it is unknown why some youths with these traits would select school friendships. Perhaps these individuals have no opportunity to associate with free-time (i.e., neighborhood) peers instead. Another possibility is the role parents or school success may play in the kind of friendships these youths choose. Kimonis et al. (2004) found that parental involvement and supervision was more related to youths' reports of peer delinquency than were callous-unemotional traits. Moreover, their findings mostly applied to late childhood/early adolescence. Similar to Kimonis et al., in the present study, the decrease in delinquency for

youths who were high on psychopathic traits was found only during early adolescence. Further research is needed to directly test whether parental involvement could steer adolescents who have psychopathic traits away from delinquent neighborhood peers and toward school peers.

The present study is unique, though, in the assessment of important peers. The choice of important peers was not restricted and included anyone who was important in the youth's life. The important peers chosen by the youth included school friends, siblings, or romantic partners. Another strength of the present study was the ability to examine the important peers' own reports of their delinquency. In prior research, peer delinquency has often been measured via report by the target youth (Laird, Pettit, Dodge, & Bates, 1999; Kimonis et al., 2004), and these measures have been shown to inflate similarity (e.g. Iannotti, Bush & Weinfurt, 1996). Another unique aspect of the present study was the inclusion of the peers' points of view. Examining these data was the only way to say whether these friendships were only in the eyes of the youths who were high on psychopathic traits. Also, these data provided us with the ability to examine relationship quality from reciprocating peers.

In sum, the present study contributes to the currently limited understanding of the peer relationships and the relationship quality of adolescents who exhibit stably high or stably low psychopathic traits. The personality traits of these individuals appear to influence their perceptions of their relationship quality with their chosen peers. This is particularly important at this developmental period, when negotiating and maintaining social relationships is becoming most important (Jensen-Campbell & Graziano, 2001). Although the evidence was much less dramatic than for adult psychopaths (see Hart & Hemphill, 2002), adolescents who were high on psychopathic traits experienced problems in their relations with others. If their peers do not perceive poor relationship quality, then there are no consequences for these youths who are high on psychopathic traits in the form of bad reactions from peers when they

behave negatively toward others. In fact, this could serve to reinforce their behavior. Thus, personality can both shape perceptions and lead to engagement with delinquent peers. Yet, this engagement is fortuitous since these peers may be the most willing to tolerate, at the very least, conflict or, at the most, a cold, selfish and inconsiderate friend.

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Table 1.

Repeated Measures Effects Over Time by Gender and Psychopathic Grouping.

	Effects	Partial Eta sq.
Target's Delinquency		
Delinquency	Time x Gender*	.02
	Grp***	.27
Violence	Grp x Gender***	.04
Target's Relationship Quality		
Supportive	Gender***	.26
Conflict	Grp*	.04

Table 1 continued.

	Effects	Partial Eta sq.
Activities with Most Important Peer		
Played Hooky	Time x Grp**	.02
	Grp***	.10
	Time***	.53
Shoplifted	Grp***	.08
	Time***	.57
Talked About Illegal Things	Grp***	.17
	Gender*	.03
	Time***	.39
Did Things That Would Get You Into	Grp***	.10
Trouble with Police	Time***	.50
Peer Delinquency		
Delinquency	Grp***	.22
Violence	Grp x Gender*	.07
Peer Psychopathic Traits		
Psychopathic Traits	Grp*	.09
	Gender*	.07

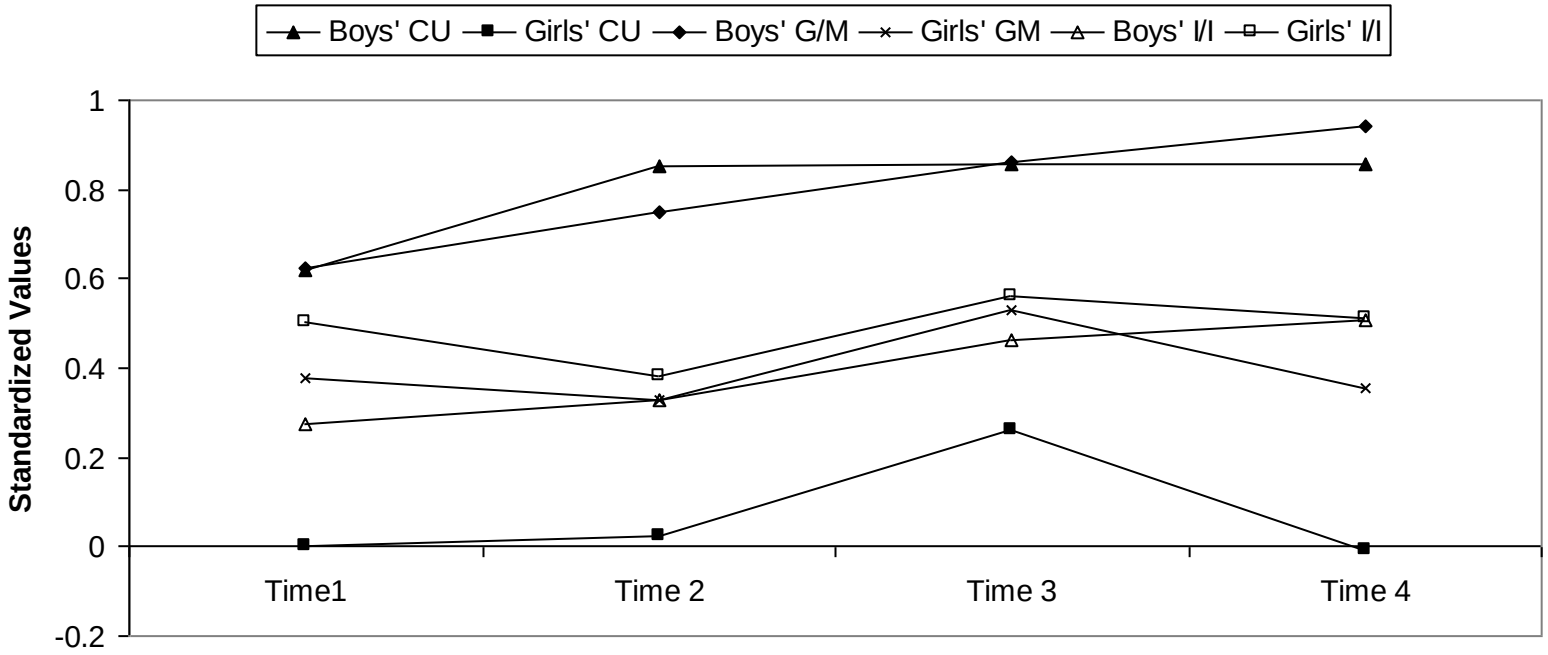
Note: Grp = between-subjects effect of psychopathic trait group; *$p < .05$; ** $p < .01$; ***$p < .001$.

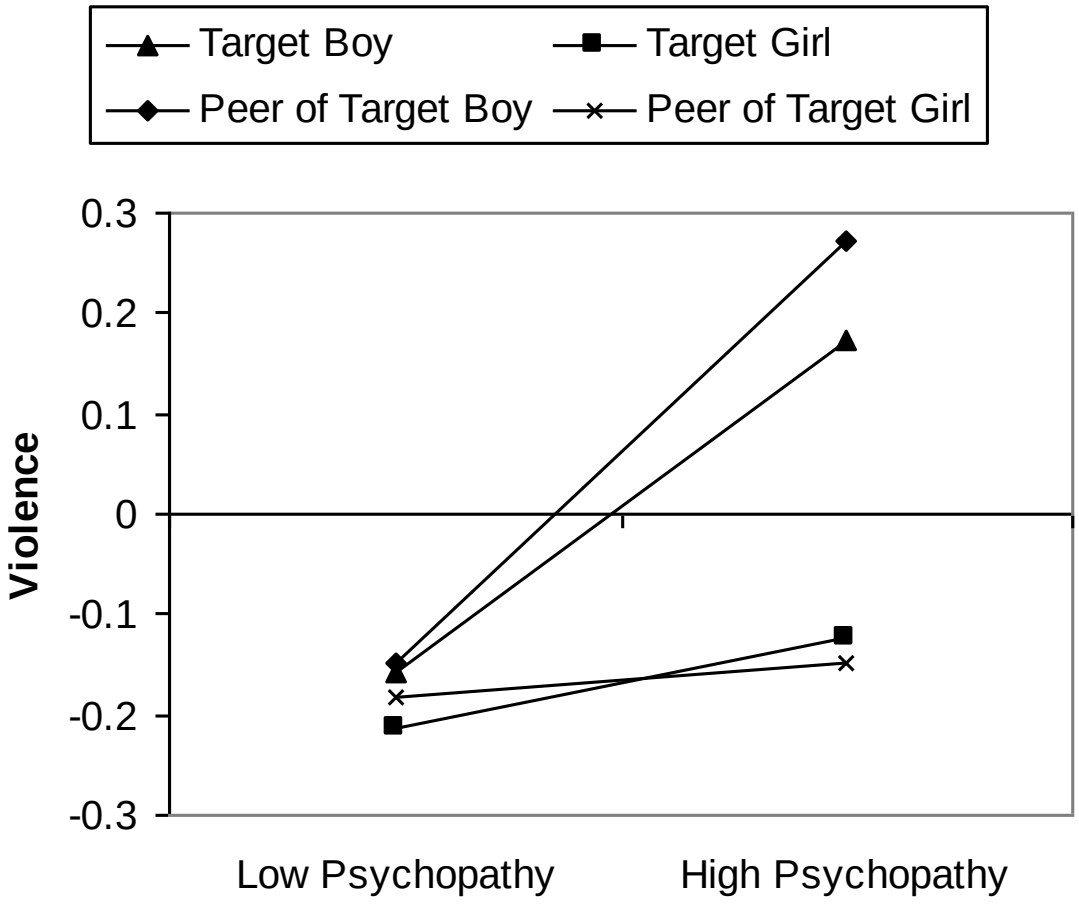
Figure Captions

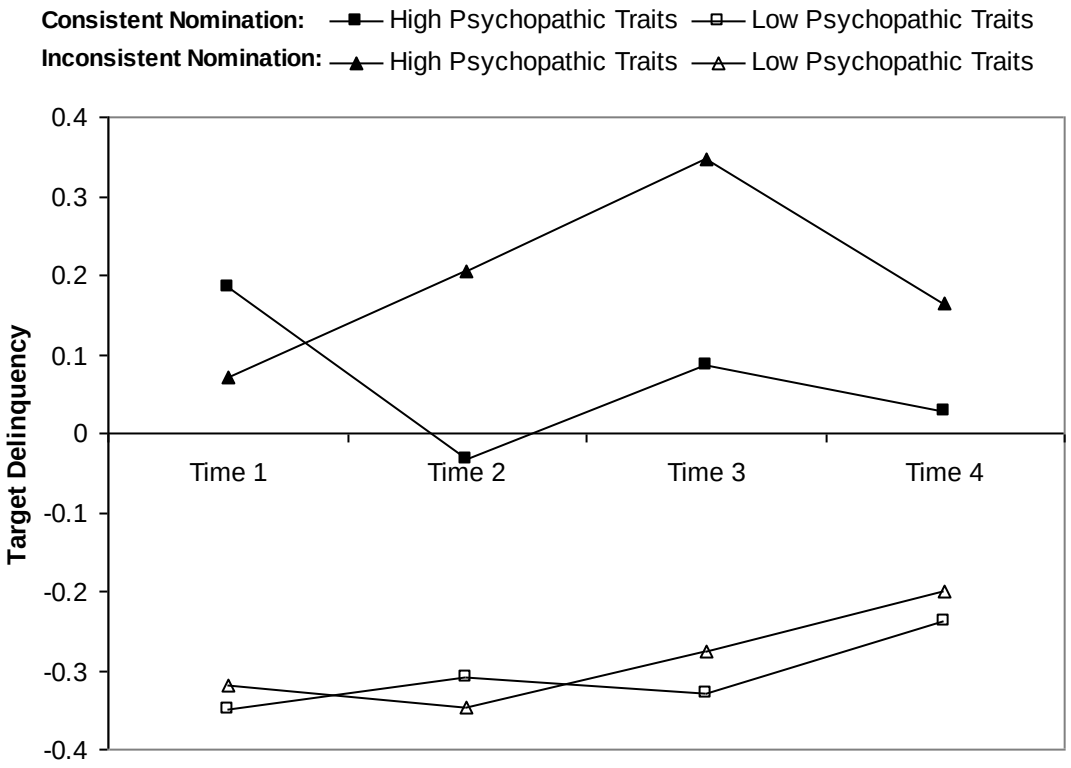
Figure 1. Levels of Youth Psychopathic traits Inventory subscales in boys and girls in the high psychopathic traits group.

Figure 2. Gender by psychopathic-traits group membership in target and peer violence.

Figure 3. Delinquency levels in psychopathic-traits groups based on consistent nomination of a school peer across time.


Boys' CU
Girls' CU
Boys' G/M
Girls' GM
Boys' I/I
Girls' I/I
Standardized Values
1
0.8
0.6
0.4
0.2
0
-0.2
Time1
Time 2
Time 3
Time 4


Target Boy
Target Girl
Peer of Target Boy
Peer of Target Girl
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
Violence
Low Psychopathy
High Psychopathy


Consistent Nomination:
High Psychopathic Traits
Low Psychopathic Traits
Inconsistent Nomination:
High Psychopathic Traits
Low Psychopathic Traits
Target Delinquency
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
Time 1
Time 2
Time 3
Time 4